

Claims

- [c1] 1. An installation for treating, in particular for coating, articles, especially vehicle bodies, having:
- a) at least one treatment zone, in particular a bath containing a treatment liquid, into which the articles are introduced; and
 - b) a conveying means, with which the articles may be conveyed through the installation in a continuous or intermittent translational movement and which comprises at least one transport carriage, which in turn comprises:
 - ba) a running gear; and
 - bb) at least one swivel arm, which is connected with the running gear so as to be swivellable about a first pivot pin and with which a first point of a supporting structure for the article to be treated is connected so as to be swivellable about a second pivot pin;
- characterized in that
- c) a second transport carriage is assigned to each transport carriage, which likewise comprises:
 - ca) a running gear; and

cb) at least one swivel arm, which is connected with the running gear so as to be swivellable about a first pivot pin and with which a second point of the supporting structure is connected so as to be swivellable about a second pivot pin

in such a way that:

d) the pair of two transport carriages comprises the following six degrees of freedom of motion:

- translational movement of first transport carriage;
- translational movement of second transport carriage;
- swivelling of swivel arm of first transport carriage about first pivot pin thereof;
- swivelling of swivel arm of second transport carriage about first pivot axis thereof;
- swivelling of supporting structure about second pivot pin of first transport carriage; and
- swiveling of supporting structure about second pivot pin of second transport carriage;

wherein:

e) for at least three of the above-mentioned degrees of freedom of movement, drives are provided, at least one of which is a translational drive.

- [c2] 2. An installation according to claim 1, characterized in that drives are provided for four degrees of freedom of motion, wherein at least one drive is actuated by a control means which is compatible with the drives of the other degrees of freedom of motion.
- [c3] 3. An installation according to claim 2, characterized in that both transport carriages of a pair comprise a translational drive.
- [c4] 4. An installation according to claim 2, characterized in that one transport carriage of a pair comprises a translational drive and a drive is provided with which the spacing between the two transport carriages of the pair may be varied.
- [c5] 5. An installation according to claim 4, characterized in that the drive which changes the spacing is a spindle drive.
- [c6] 6. An installation according to claim 1, characterized in that all the drives for all the degrees of freedom of motion are arranged on one transport carriage of the pair.
- [c7] 7. An installation according to claim 1, characterized in that the drives for the degrees of freedom of motion are distributed between the two transport carriages.

[c8] 8. An installation according to claim 1, in which a treatment zone comprises a dipping tank for electrophoretic dip coating, characterized in that one transport carriage of a pair effects a connection between the one pole of a voltage source and the article to be coated, while the other transport carriage effects a connection between the opposite pole of a voltage source and an auxiliary electrode carried inside the article to be coated.